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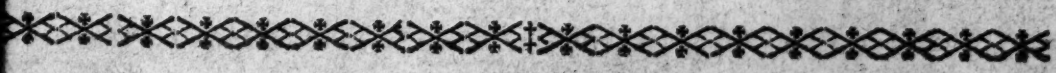


THOUGHTS

UPON

THINKING, &c.

1773.



THOUGHTS upon THINKING,

O R,

A New Theory of the Human Mind;

W H E R E I N

A PHYSICAL RATIONALE

O F T H E

Formation of our IDEAS, the PASSIONS, DREAMING,
and every FACULTY of the SOUL,

I S A T T E M P T E D

U P O N P R I N C I P L E S E N T I R E L Y N E W.

The SECOND EDITION, CORRECTED and ENLARGED,

Wherein all the *Objections* that have hitherto appeared, (especially those in the *Monthly Review* for January 1756, Page 54,) are fully considered and removed.

By J. R I C H A R D S O N.

I applied mine Heart to know and to search, and to seek out Wisdom, and the Reason of Things. Ecclef. vii. 25.

----- e Cælo descendit, γῆς ἀνὰ ἄστρον.

Figendum & memori tradendum pectore,-----

Juvenal.

My Father !-----methinks I SEE my Father-----

----In my Mind's Eye.

Hamlet.

Entered at the STAMP-OFFICE according to Act of Parliament.

L O N D O N:

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THOUGHTS upon THINKING, &c.

HAVING some Years ago read over several learned and justly celebrated Authors, as Lord BACON, DESCARTES, FENELON, BROWNE, LOCKE, CLARKE, WATTS, WOLLASTON, BERKELEY, CHEYNE, BAXTER, LEIBNITZ, and others, for my Information about some Things which I greatly desired to know, namely, what are, and wherein consist, *Animal Life*, *Self-consciousness*, *Volition*, the *Ætiology of Thinking*, and the *Physical Cause of the Passions*; but not having received the Satisfaction* I expected, (for though they have given a curious Detail and History, if I may so call it, of the Operations of the Mind, and proved many excellent Truths, yet to me they did not appear to have looked enough into the secret Spring of Things) I set myself to consider those Matters with the deepest Attention I was capable of exerting.

Some few of the Thoughts and Observations I then had and made, I have lately revised, and flung into the following Order, and now beg Leave to communicate them to the Public as an Incitement to others to a further Pursuit.

B 2

S E C T.

* In this I happened not to be singular. The pious and learned Dr. WATTS, in his Preface to his Philosophical Essays, speaking of Mr. LOCKE, says, 'But there are some Opinions in his Philosophy, especially relating to intellectual Beings, their Powers and Operations, which have not gained my Assent.' And further, with great Resignation, he says, 'If we can never find out how our Spirits form their Ideas, &c. it becomes us to lie humble at the Foot of our Maker, the Infinite and Almighty Spirit, and to content ourselves under our present Ignorance.'—But I hope I have made the Discovery.

SECTION I.

WHOEVER will strictly attend to and observe what passes within himself, will find that *Thinking* in general, or having or forming *Notions* or *Ideas* of *Things*, with whatever Degree of Intention, or even in the most abstracted Manner, is no other than having Secondary Sensations (*ab intra*) of Objects of which we have had immediate, actual, or real Sensations before (*ab extra*) by some or other of the Organs of the Senses; and that the *Rationale* of the whole Human Understanding, (Self Consciousness, Volition, Imagination, Judgment, Memory, or any other Faculty or Attribute of the Soul whether active or passive) is from these Primary and Secondary Sensations entirely deducible.*

Or, perhaps, *Thinking* may not unaptly be stiled a Mimicking, or acting over again, every Kind of Sensation, performed by the same Organs, (in the more interior Parts of their Construction) but the Impulse being different, and exerted in a different Manner, from that exhibited by real Objects: [See *Seçt. VII.*] Or, a Secondary beholding or viewing of Things in our Minds, extremely like that real Intuition or seeing of Things with our Eyes from the Impress of Light.

When what follows shall be rightly considered, I will appeal to the Experience of every one, who has had *Thoughts*, for the Truth of what I advance.

In

* So just is that old Axiom, *Nihil est in Intellectu, quod non prius fuit in Sensu*; to which I think may be added, *Intellectus Animi Sensus Secundarius est.*

In the mean Time, let it be remembered, that Sensation is properly Feeling ; that by Primary or Actual Sensation I mean our Consciousness of the Presence of an Object, either in the more refined Way, by the Mediation of, or the Impulse from Light and Air, as in Seeing and Hearing, or in the grosser or more palpable Manner, by immediate Contact, as in Smelling, Tasting, and Touching ; and that by Secondary Sensation I mean our Consciousness of its Represence, or Representation, when we think or fancy we See, Hear, Smell, Taste, and Touch or Feel it again in our Minds.

How this Sensation is carried along the Nerves to the common Sensory, or wherever the Seat of the Soul is, whether by a Vibration of their fine solid Threads, or by an Undulation of some Fluid, supposed to be contained in them, or rather by the quick Motion of Electric Fire* is out of the present Question ; though I am inclined to believe the last, and think it very happily supplies the Place of the old fictitious Animal Spirits.

Neither seems it altogether necessary here to explain minutely how Vision, Hearing, &c. are performed by and upon their respective Organs, which would take up a good deal of Room and the Reader's Time, whom therefore I shall refer to the Writers on Optics, &c.

* See the ingenious Mr. FREKE's Treatise.

S E C T. II.

HOW we come then to know that we exist, or are in Being, or what is Self-Consciousness, seems to be the First Question that should occur in this Research. Now, as far as I can possibly look into myself, or back to the Beginning of Life into which my Maker awaked me out of a State of Insensibility, dressing me up in Body, I cannot find it to spring from any Thing besides that universal Feeling, Sensation, or Perception, which we have of ourselves, and this Material World, and its Parts (or the glorious Objects it exhibits) around us.

We cannot be sensible or conscious that we see a Thing without seeing it, or that we have known or seen a Thing without having known or seen it. I can never be conscious of my own or any other Thing's Being without first feeling, seeing, or being sensible (some how) of both. These must be self-evident Truths, the first Principles of all Demonstration.

But here an Inference immediately arises, too momentous to be neglected or overlooked; and that is, that the Mind or Soul must be something distinct from Body or Matter, and have *pre-existed*, (how long is out of the Question) and that, if it had had its Working Tools or Instruments of Knowing sooner, it would have known or become acquainted with Things sooner.

This to me appears to be very just. The Organs of the Senses are indisputably the Soul's Instruments of Knowing and Perception in this State. But how it existed, or will exist,

exist, when divested of its Vehicle, we cannot form the least Notion or Idea. This we are sure of, that it must be after a Manner quite different from that of its present Existence.

Dr. *Brown*, the late sage and learned Bishop of *Corke*, (the Author, as I have been told, of that Book) in his Procedure of the Understanding, says, (Page 76) that 'Whatever the Manner of Knowing is in pure Spirits, it is no more performed by *Thinking** than their Motion is by Walking, or Running, or Flying.' And indeed, though I cannot agree with him in every Thing, he writes with great Perspicuity, especially where he treats of Mr. *Locke*'s Doctrine of the Ideas

* See Psalm cxlvi. 4.

* How widely he differs from Mr. *Locke*, who calls God (the Father of Spirits) 'the eternal first thinking Being,' (See Book iv. ch. 3. Sect. 6.) and (Book ii. ch. 1, Sect. 10.) he says, 'nor can I conceive it any more necessary for the Soul always to think than for the Body always to move; that, perhaps, is the Privilege of the infinite Author and Preserver of Things, who never slumbers or sleeps.' I hope, (by the Help of the God of Truth) I shall be able to prove that *Thinking* is, having secondary soft Sensations of Objects (*ab intra*) from a Light and an Impulse, (which I shall call substituary and succedaneous) after the Manner of real Sensation or feeling of Objects or Things, (*ab extra*;) that it consists of two Parts, Volition and Perception, the one active and the other passive; and that it is exerted by the *Mind* in Conjunction with its Machine the Body. Does God then (whom we are told by our Holy Religion is without Body, Parts, or Passions) think or excogitate? And does he exert that Faculty by Means of Bodily Organs? Has slumbering or sleeping (tho' mentioned negatively) any Thing to do with that infinite and eternal God in a literal Sense?

This Sensitivity, (by the Bye) or *Principium Sentiens*, whether primary or secondary, is, perhaps, all we shall ever be able to say or offer about Animal Life, the Essence of Existence or Feeling, or about Spirit in the Abstract, in this present State of Flesh and Blood; for with St. Paul, I firmly believe in the Resurrection of the Dead, and a future State, (in which we shall have new Vehicles) and that there is a natural Body, and that there is a Spiritual Body, (however shallow superficial Free-thinkers may cavil, or Commentators have obscurely explained it) as the God within me (my Conscience) all my self-evident Feelings, and my reasoning Faculty springing from the same, all tell me.

Ideas of Reflection, which he has in my Opinion unanswerably refuted.†

Yet all this affects not a future State of Rewards and Punishments, nor the Immortality of the Soul, nor the Resurrection of the Body, which their First Maker can restore to one another, in his own good Time, after the Dissolution of their Union in this State.

S E C T. III.

THE Mind then, thus accoutred with Body or a Material Machine, (besides unavoidable Consciousness) we find to be endued with Volition or Will, that is, as I take it, a Power of Chusing or Rejecting, of Acting or Not Acting, whether with regard to moving that Machine and receiving real Sensations, or Thinking; which is the next Thing that falls under Consideration. And to me it appears to be no other than its resolving upon, or determining itself to this or that, viz. to act or not to act, &c. which seems to be caused by its Attraction or Inclination to Things agreeable, or Disinclination or Repulsion from Things disagreeable, springing from a Belief, or Pre-consciousness acquired by Education or Experience, that the Things are so, or so. And this Inclination and Disinclination, which as it were stimulate the Will, begin to appear in Children even in their Infancy.

This

† An Idea of Sensation is a secondary Feeling of a Thing which I have actually seen, heard, or somehow felt before: What Mr. LOCKE calls an Idea of Reflection, is, inward primary Feeling itself, or Self-Consciousness; as at this Instant I feel myself awake, and am conscious of every inward Movement of my Soul, whether with Regard to Volition, Recollection, Judgment, or any of its Faculties.—Can there be Ideas of any Sort without the least Attention to, or being conscious of the Circumstances of Matter, Form, Colour, or Subject, &c.? The Answer in the Negative appears to me to be self-evident: An Idea of Reflection must therefore be a Shadow of a Shadow—a mere Non-Entity.

This also seems to be in some Sort evinced by the almost irresistible Force we find in the Passions.

It is true, indeed, we can do ~~us~~ Violence to Volition by willing Things disagreeable or contrary to this Attraction or Inclination; but then it is always against the Grain and with Reluctancy, as in the Case of making painful Applications, or doing Things ungrateful, in order to avoid or get rid of some greater Inconveniency or Evil; or of leading an austere Life, full of Mortification and Self-denial here, to secure one pleasanter, happier, and everlasting hereafter.

If it should also be said, that perhaps Volition may be (or be caused by) some deep (never to be fathomed) original Instinct, co-etaneous and co-essential with the Soul, and objected to as putting us on a Level with Brutes; may it not be answered that the Instinct of Beasts is of God's own implanting, and has never yet been tolerably accounted for? and that Light and Air are not less valuable for being enjoyed in common with us by the whole Animal Creation?

Or may it (the Will) not be, in a great Measure, the Result of some peculiar Kind of Magnetism, (or rather Property analogous to it) arising from animated Matter, or Mind and Matter united?

Might not the various Influences of Attracting and Repelling Objects (Beauty, Musick*, Hunger, Thirst, Objects of Fear and Hatred, what Physicians call the Non-naturals, &c. in their various modes,) upon it be here also considered?

C

And

* This is conspicuous in that Dancing in general is excited by some Modes of it, and in the Cure of the Poison of the *Tarantula*.

And do not we actually often find it affected by the Power of Rhetorick or Persuasion, and so far from being absolutely free and independent, that it is rather commonly a Slave to Faith and Opinion, and often to the Passions, as in Youth, when they are for the most Part too strong for Reason? But of this more when we come to treat of the Passions. [See § X.]

But still, for all this, it is granted that the Mind, (with respect to Moral Liberty and Necessity) in its calm, unbiassed State, has a Power, or is at Liberty, to do a Thing, postpone it, or not to do it at all. And therefore if, upon Admonition of the Consequence, either from its own Knowledge, or the Information of another which it ought to credit, it makes a wrong Choice or Determination, it is inexcusable and justly incurs a Penalty, suffers Loss, or is liable to Punishment; as, on the contrary, if it makes a right Choice, it is entitled to all the accruing Advantages or Reward. The Law, in some Cases, makes a Distinction between a Crime committed in the Heat of Passion, being highly tempted or provoked to it, and one committed coolly and deliberately without such Temptation or Provocation.

S E C T. IV.

THUS much being premised concerning Consciousness and Volition, it follows next in Order that it should be shewn (which is the chief and main End of this short Essay) how the Mind exerts that wonderful Power or Faculty of calling back to a Second View, or Consideration, Objects that are past and gone; or, in other Words, how it forms Ideas or Thinks. And here, if he has not as yet, I flatter myself that the Reader will begin to find something
New;

New ; for, with the Reverend and very Learned Mr. WOL-
LASTON, I can truly and safely say that what I am going to
advance, and which is *the prevailing Thought that runs thro'*
*the Whole, I never met with any where.**

I have observed then, (after considering it in the deepest
and most abstracted Manner I was capable of) that the Mind,
or Soul, never Thinks, that is, Studies, Remembers, or Ima-
gines, any Thing, without using (tho' sometimes almost in an
imperceptibly small Degree) the Organs of that Sense, which
the Ideas it has in Consideration belong to, the same way as
if it was actually perceiving what they represent by imme-
diate Sensation. For Instance ; when I reflect on any of the
Objects of Seeing or Hearing with great Intention, I cannot
help putting the Organs of the respective Sense in the same
Posture, Frame, or Disposition, (call it what you will) as if
I was actually perceiving what I was only thinking on, and
am conscious of a Sensation (tho' also in a small Degree) of
the same Kind as at first ; that is, I am conscious of a Sensation
very analogous to that of *Seeing* an Object in such or such
a *Light*, Attitude, or Action, as I had primarily, or before,
from the real Object itself, by the Mediation of, or the Im-
pulse from, such or such real *Light* itself ; a Notion of Dis-
tance of Time and Place always associating or accompanying,
that is, when and where what I am thinking on happened.
I have often dissected the Ideas of every Sense, and have al-
ways found them (whether simple or complicated) constituted
and constructed the same.

Some Painters will draw a good Likeness by the Strength
of their Memory : Have not they then a Consciousness of
C 2 the

* See Religion of Nature delineated. Page 6.

the same Sensation of Vision as if they were actually looking at the Original ?

Does not One's humouring a Story when he tells it, and our often as it were unawares acting the Part we are thinking on when we contemplate with excessive Intention, especially in any of the Passions, (that is, our invariably behaving so as if we were actually Seeing, Hearing, &c. what we only do in Imagination,) seem to confirm this ? And does not our Compassionating and Sympathizing with Objects of Pity in Distress, and entering into the same Humours and Passions with the Players in a well-acted Scene, still illustrate the Matter a little further ?*

And

* When any one upon a Journey is travelling on Foot or Horse-back along a Road he has often gone before and is well-acquainted with, he may observe how naturally and successively the Parts not yet, but soon to be, in Sight arise in his Mind, associated and as it were linked to those in View, or under real present Intuition; and he will then find that the Consciousness or Sensation is the same in both, and but differing only in Degree and Manner, as proceeding from a different Impulse differently exhibited [See *See*. VII.] upon the same Organs subservient to actual Seeing. This may also serve for still further Proof and Illustration: For here Objects, immediately to succeed to View, are already almost realized to it beforehand, if he thinks at all about them; and here Primary and Secondary Sensation are joined or linked together, alternately succeeding one another.—The same thing also happens in an infinite Variety of other Scenes: As for instance, in going to Places of Pleasure or Entertainment, as Time and Place draw near, are not the Things in Expectation almost before his Eyes before he arrives ? Or, when we see a strange Face a good deal like one we know that is absent, which it puts us in Mind of, how are we conscious of the Likeness, or how can we compare them, but that the Consciousness or Sensation we have of both are of the same Kind or Genus, tho' of a different Species, the one being Primary, and the other Secondary, the Mind itself naturally and dextrously substituting the last for that Purpose, (viz. of Comparing) in the Manner partly already, but that shall be further unfolded ? For further Conviction still, that the Sensation is of the same Kind, look but upon any just Picture or Print, or well-drawn Prospect of any Person, Thing, or Place, you know, and compare your Consciousness of what is before your Eyes with that it at the same Time raises in your Mind of the Original.—When any one asks another, which is the Way to such a Place ? Does not the Answerer as he tells him the Road he is to go, and describes the Places, &c. adjoining, he is to pass by, as it were see the whole

And here I would have it observed that, when I speak of Postures, Frames, &c. of the Organs, when the Soul thinks, I do not mean the exterior Parts of these Organs, as for Instance, that there is Occasion for the Action of the Muscles and Nerves which move the Eyes, (tho' that will sometimes happen when we are passionately intent upon a Thing) that being only requisite for Primary Perception, but their more inward Mechanism, (of which, for Instance, one Extremity is the *Retina*, with respect to Ideas of Vision) even to their very Origination.

To make this clearer, let any one make this Experiment with himself. Let him, in a Place where he is most undiverted with real Objects, (in Bed of a Morning, in the Dark, I always found to be best) take a View of any Place in his Mind he is very well acquainted with, (*Oxford, Cambrdige, Glocester, or Bath*, for Instance) with that Intention as if he was to take a Draught of it; let him then observe, and he will find that the interior Parts of the respective Organs are in the same Disposition or Frame, and that he is conscious of a Sensation of the same Kind, as if he was actually seeing it; nay he will even, as his Mind roams from Place to Place, find a slight Moving of the Eyes themselves.

The same Experiment may be tried with any other of the Senses, tho' not precisely with the same distinct Success, as
their

whole successively in his Mind? Is not this Kind of Seeing of Things then *Thinking*? And is not *Thinking* a Secondary Seeing or Looking at Things. He can fancy Things to appear in what Kind or Degree of Light he pleases, from the brightest Sun-shine to that of Night itself; though their Appearance thus to him, in his Mind, is always in that Light he is in when he talks to the Asker.—We are said to ruminate upon Things, to look back upon Things, to review Things in our Minds; all which Expressions, and numberless others, denote an Inward Organical Reframing, and a Secondary Consciousness, Sensation, or Feeling.

their respective Objects are always unavoidably blended or associated with the Ideas of Sight.

In thinking or reflecting on Sounds, or Objects of Hearing, (especially Musical Ones) we naturally assist ourselves by associating the Voice, tho' in an almost imperceptible, low, under-breath Manner; and so on respectively as to the other Senses.

Here again I would have it remembered that all Sensation is properly Feeling; and that Seeing and Hearing any Thing are as much Feeling as when we handle a piece of Ice, or feel a Bit of Velvet. Let it also be observed that, in all Primary Sensation, an Impulse from the Object upon the naked medullary Ends of the Nerves is absolutely necessary, which ever Organs of the Senses they belong to; as upon those of the *Retina*, the *Portio Mollis* of the Auditory Nerves, the *Papillæ Pyramidales* of the Skin, &c,

S E C T. V.

DREAMING, which is fancying we see, &c. Things when we are asleep, still further confirms what has been said; and, having mentioned it, I will here take a little Notice of that *Phænomenon*.

That Things, in Dreaming, seem to be real for the present proceeds partly from this, that, the Organs of the Senses being shut up externally, the Mind can have no Impulses from outward and real Objects to compare them with, and thereby perceive their Imaginariness; and partly, (as my Opinion for some Time hath been) that, in Sleep, they (the Organs) being inverted or altered in somewhat their Position, the

the Pupils of the Eyes turning up, as may be seen in Children* when their Upper-lids gently fall down as they go to Sleep,) the impulsive Cause, [See *Sect. VII.*] absolutely necessary in *Thinking*, exerts itself upon the soft, naked Ends of the medullary nervous Fibres, as well as upon the Outside of their Coats; which makes it resemble Primary Sensation.

This impulsive Cause may be exerted, for Instance, from the Inside of the Upper Eye-lids†, (as well as from the Parts more contiguous) through the *Cornea* and Humours of the Eye, upon the *Retina*. And this seems to be the Reason of that almost infinite Variety of Images and Things seemingly floating and passing before us when we are upon the Confines between Waking and Sleeping.

It also proves that Dreaming, and Thinking that we actually see Things, &c. are done with the same Instruments that we actually see, &c. with, only the Impulse not being by the Mediation of the external circumambient Light, or Fire, &c.

And very likely to the Excess of this Inversion and Alteration of Position, perhaps, of the whole *Sensationary Nervulous*

* I have often observed Children, in Play, shut their Eyes and cry out; what a many pretty Things I see now!

† May it not also be exerted after the same Manner, upon the Papillæ of the Auditory Nerves? And may not to this be owing that still small Voice-like shrill Choral Singing, or Humming, we are often conscious of in our Ears, after having lain some Time awake in the Night, as we re-enter the Borders of Sleep, sometimes, like the fall of Water, in various Tones or Accents, and at various Distances, and sometimes, as Sleep approaches nearer and nearer, as it were, like sudden Gusts of Wind, or Slight Electrical Shocks from Ear to Ear, as I have often perceived it?

vulvous Machine, is owing the Irrememberableness of some of our Dreams, and the Thoughts we had in them, when we awake, as the Dispositions or Frames cannot then be renewed. This, by Divine Appointment, seems to have been NEBUCHADNEZZAR's Case, who, tho' he could not recollect and think upon the Particulars of his Dream, could by no Means shake off the Terror and Agony it had excited.

And to this Impulse also (from this Inversion) being exerted upon the naked Ends of the Nerves, as well as upon the Coats of their Sides, are owing perhaps all the *Phænomena* of our Dreams, (Things seeming real) with all our Modes of Thinking, Reasoning, and Reflecting in them, and every Association and Connection belonging to them;* which still makes it further manifest that, in this Case, the nervulous Organical Disposition or Frame is the same with that when we *see* and *think* when we are awake, and that in both the last (viz. *Seeing* and *Thinking*) it is the same.

For the Mind is no more out of the Body (as some have been stupid enough to imagine) when we Dream, than One is at St. *Paul's* Church in *London* when he chances to think upon that Grand and Noble Fabrick, at an Hundred Miles Distance, when he is awake; for we never Dream we see
or

* Sometimes in extreme sound Sleep, we don't Dream at all. This, as far as we can conceive of the Mechanism of the Parts, may be owing to the Relaxation, or Change of Disposition, to what they are in in a waking State, being so great that the Arterial Impulse is, as it were, shunn'd or eluded, and can have no Effect. But when we awake from this Sleep, (which commonly is the most refreshing,) and the evigilative disposition of the Parts is restor'd; how soon this Darkness of Insensibility is dispell'd! What Self-consciousness, what Light, what Scenes immediately arise! Tho' it be ever so dark exteriorly, we know where we are, can see in our Minds, and think on a thousand Things.

or do any Thing but we always have a Consciouſneſs of our being inveſted with our Bodies.

And this fancy'd Reality ſeems to be the Reaſon alſo why Dreams make ſometimes ſuch ſtrong Impreſſions on the Soul as to excite the Paſſions, till by the Exceſſivenes of theſe, as it often happens, the Organs are as it were diſturbed out of their preſent Poſition and State of Laxity and Reſt, and (the Doors being opened for other Objects with which we can compare our Dream) we awake and wonder at our Miſtake; and in thoſe extremely pleaſant or frightful, this is commonly the Caſe.

Dreams therefore (eſpecially our Thoughts in Dreams) for the moſt Part differ but little from Waking Thoughts or Ideas, I mean thoſe of that Sort which Mr. LOCKE has obſerved to be continually floating before our Minds, (as he expreſſes it) whether according to the Direction of the Will or not, or thoſe *neſcio quid nugarum* which occur to our Meditation in our Walks and Lowngings.

The Incoherency alſo we obſerve in them, or the quick and almoſt instantaneous Shifting of the Scene, and unheeded Tranſition from one Thing to another, prove Dreams to be of the ſame Nature with thoſe Reveries.

In Dreams we ſeldom or never have any Notion or Remembrance that we were ever in any other State, viz. awake; but, when awake, we can remember our Dreams in Proportion to the Impreſſions they have made. The Reaſon ſeems to lie in this: The Mind cannot be conſcious or ſenſible of the Difference of Things, without comparing them, neither

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can

can it compare them without the Organs of the Senses. Now, when we are awake, they are in a State of Tensity, but, when asleep, in a State of Laxity, and externally shut up, and internally (as hath been observ'd) somewhat inverted. The Knowledge therefore, or Consciousness of the Difference of Things, being the Result of comparing them; and the Power of comparing, depending on the Organs being in the Condition they are in when we are awake, the Mind or Soul cannot, when we are asleep, know or remember, by comparing, that we were Yesterday awake, and now Dream, because the Instruments it performs those Operations with are either not in Order or Tune, or already in Use, as in Primary Sensation, as before; for, the Instant we discover that we are Dreaming we are awake, and look back on the Delusion with Wonder, having then fresh Ideas, or rather Objects immediately by the Senses, to compare those of our Dreaming with, whereby we see the Cheat.

But though, for the most Part, we do not, when we are Dreaming, remember that we were awake Yesterday, and then did such and such Things, and tho' we are not conscious that we only Dream; yet we often remember Things that are not then present, and which had happened in a waking State: Answer, These are commonly Things relating to what we are Dreaming of; for, when we Dream of particular Persons, Places, or Things, our Connections with them naturally and necessarily arise in our Minds from the common Association of Ideas, of which more afterwards: For Thinking and Remembering in Dreaming are performed in the same Manner as they are when we are awake; and so far, however paradoxical it may appear, we are really so, for in strong and vivid Dreaming we believe or fancy ourselves to be

be awake, that is, we seldom have any Notion or Suspicion to the contrary, having all the Self-consciousness and Secondary Sensations of one in that State. The Reason of all which seeming thus real, and so like Primary Sensation, I have already assigned.

But the most difficult Part to be accounted for in Dreaming is, that we are often conscious of remembering past Things, as having happened before in Reality, which, when awake, we cannot remember ever to have so happened. This must either proceed from what had happened in some former Dreams, which when waked out of we had absolutely forgot; which I think must be the Case, (for I have known Persons who have, when elevated with Drinking, said and done a great many Things that, when sober and acting in a different Scene, they could neither think of nor remember, 'till they were again in the same Place, Condition, and Circumstances, and with the same Company and associated Objects as at first, and then they could clearly and distinctly) or else it must (one is almost inclined to believe) imply a State of *vehicled Pre-existence*.

In Dreaming we seem to exert every Faculty of the Mind, to will, to move our Bodies, and the exterior Parts of the Organs of the Senses, (as we certainly do the interior) to See, to Hear, to Smell, to Taste, to Feel, to Think, to Remember, to Speak, lay Schemes, make Verses; to be agitated with every Passion, to Love, to Fight, to be pleased, angry, sorrowful, joyful, &c. All this is We, or is done by, our own selves, in the First Person, and to be accounted for as above. But when we are addressed to in the Second and Third Persons by others, and hear Speeches uttered with

great Coherency and Strength of Argument, which we are conscious we did not by any means premeditate for them; I can see no Help for it (unless the Soul is possessed of more Divinity than we are aware of) but that, with the learned and ingenious Mr. BAXTER, we must admit of a separate Order of Beings who (cloathed in excessively tenuous Vehicles, perhaps of Light or Fire, which they can contract or dilate, and alter in Colour and Shape, as they please, and thereby intraneously exhibit to us an infinite Variety of Scenes) can and do at some Times vastly affect and influence our Dreams, but still under the Direction or Permission of *the God and Father of the Spirits of all Flesh*.^{*} And I can see no other Way of accounting for those that are Symbolical,[†] Monitory,[‡] or Phophetick, nor for the *Second Sight*, (that is, being in a Trance, like BALAAM, with his Eyes open, and seeing Things which certainly come to pass) heretofore common in the Highlands and Western Isles of *Scotland*, a Thing undeniable and well attested||.

Is it not now from all this clearly evinced, that *Thinking* and *Dreaming* are nearly of one and the same Species? for here is no Candle, Sun, or Moon, to present Objects of Sight by, more than there; no real Noises, Smells, Tastes, or Feelings; and yet the Soul has a Consciousness of them all, as they
they

* See LOCKE, on Enthusiasm, Book IV. Chap. 19. Sect. 10.

† Lord BACON says, 'I myself remember that, being in *Paris*, and my Father dying in *London*, two or three Days before my Father's Death, I had a Dream, which I told to divers *English* Gentlemen, that my Father's House in the Country was plaistered all over with Black Mortar.' See his *Sylva Sylvarum*, Century X. 986.

‡ See Multitudes of Examples in all History Sacred and Profane.

|| See MARTIN and others upon that Subject.

they were actually present*. And from the whole may it not be fairly concluded that the Postures, Frames, or Dispositions, of the Organs, with respect to their interior Mechanism, are the same in both as when we actually see, hear, smell, taste, or touch, any Thing when we are broad awake†.

S E C T. VI.

FOR further Proof and Confirmation of what has been advanced, to wit, That in forming our Ideas in every different Mode, the Mind makes use of the same Instruments (inwardly adjusted in the same Manner) as it does in Primary Sensation, (a minute and particular Account of whose interior Structure in the Medullary Substance of the Brain is never to be given by the nicest Anatomist: Sufficient it is, we may be assured it is most curiously and justly adapted to every Purpose of Thinking) let the following Miscellaneous Remarks be just mentioned.

Our being often tired with Studying or Thinking, all one as with Bodily Exercise, proves it to depend upon the Use of the Organs, by the Mind's putting them in the same Disposition (in a greater or lesser Degree of Tensify, in Proportion

* Indeed, for my own Part, tho' I am no *Hypniomancer*, I have had so many Experiences in Dreaming, in Confirmation of the Truths I am now declaring, that I am afraid to tell them, lest, in this sceptical, misled, fancied-self-wise Age, I should not be believed.

† Don't we sometimes wake with our Hands clenched or shut, as if grasping something, and sometimes the Whole Organical System in various other Dispositions, the Charm or Enchantment often continuing some small Time before it quite dissolves?

portion to its Intenfeness of Cogitation) as when we actually perceive the Things that we are thinking on.

The Mind cannot confider Two Things at once any more than I can look both *East* and *West* at the fame Time.*

The great Difficulty and almost Impossibility of putting them in the very fame exactly true Disposition or Posture, is the Reason why our Thoughts or Ideas seldom exactly every Way agree with the Things they stand for or represent when we come to compare them.

The more clearly and distinctly we Think, the Posture is nearer the fame; the more faintly and confusedly, the contrary.

And hence it may be accounted for why Schemes laid for great Degrees of Happiness in this Life, or any other Purposes, often prove abortive; also the Vanity sometimes of studied Speeches and Behaviour beforehand.

The learned and ingenious Dr. CHEYNE, in his Method of Cure in Diseases of the Body and Mind, (Page 32) says,
 ‘ What are the true primitive Material Organs employed in
 ‘ Thinking and Cogitation, what their Nature and Figure,
 ‘ is absolutely unknown, and, I fear, unknowable by us.
 ‘ That

* For I can by no Means believe the Story of JULIUS CÆSAR, (it being contrary to Nature, Reason, and Experience) who is said to have dictated to several Clerks, while he himself was writing at the same Time, unless it was the same Letter to several Persons, which, whilst he was writing one of them himself, for the Sake of Dispatch he read out to the rest, having before meditated the Scheme or Orders it was to communicate.

‘ That this Immaterial Principle, in its present State of
 ‘ Union, necessarily requires some organised Instruments in
 ‘ its intellectual Operations, as well as the Senses do, I
 ‘ think, is past all Doubt.

Page 34. ‘ We cannot but imagine that it is somewhere
 ‘ in, by, and with, our Brain, that we think and consider.

Page 35. ‘ I imagine the Spiritual Substance uses Ma-
 ‘ terial Organs, of one Kind of Matter or another, in its
 ‘ Operations; and it is highly probable, that they are the
 ‘ Nervous Glands, the Filaments, the Nerves, but especially
 ‘ the Membranous Coats of the Infinitesimal *Nervuli*, and
 ‘ their wonderful Texture and Mechanism, so little known
 ‘ or understood.

And (Page 36) he says, ‘ The Pleasure, Facility, and Ele-
 ‘ gance, of Cogitation consists in the Suppleness, Culture,
 ‘ and habitual Exercise, of those nervous Organs, just as
 ‘ much as a graceful and easy Carriage and Manner of the
 ‘ Body is acquired by proper Exercise and repeated Acts.
 ‘ We must use this Sort of Exercise, and apply these ner-
 ‘ vous Glands in Thinking, in the same Manner as we use
 ‘ the several Muscles, or widen and direct the Pupil to a
 ‘ proper Distance in Seeing: For Attention and Considera-
 ‘ tion we must fix these Material Organs of the Intellectual
 ‘ Faculty as we fix our Eyes to see, or discern distinctly, &c.

Here he allows the Necessity of Material Organs for
 Thinking, (which, I apprehend, fairly implies it to be ha-
 ving Secondary Sensations, &c. see *Seet. I.*) but makes them
 different from those of the Senses, though he will have the
 Materials

Materials for their Composition to be of the same Kind, to wit, little Nerves, and their Membranous Coats, and thereby gives the Mind two Machines, two Sets of Working Tools, one for Thinking, and the other for Sensation or Feeling.

Had he only distinguished between the internal and external Mechanism of the same Organs, and happened to hit on the two different Kinds of Impulse (see *Seet. VII.*) equally and absolutely necessary, the one for Thinking, and the other for Primary Sensation, he had, perhaps, better succeeded in his Enquiry.

The aforefaid learned Bishop of *Corke* also seems not to have been very wide of the Mark, when he says, (Page 149) ‘ The pure Intellect is properly the Immaterial Part of us ‘ acting in essential Union and Conjunction with the *Animal Spirits* and remote *imperceptible Fibres* of the Brain, which ‘ are more immediately subservient to Thinking or Knowledge, and all the Operations of the Understanding.”

And, (Page 373) “ Now the Understanding and Will being principally the Operations of this pure Spirit, though ‘ they are necessarily transacted in Concurrence with Material Organs, &c.”

Does not this also imply, that in Thinking we have a Sensation or Feeling, (which I call Secondary) very analogous to that which we had at first from the Impulse of the real Object itself?

The good Dr. WATTS also says, (Page 80 of his Philosophical Essays) ‘ When we set ourselves to Think or Study, ‘ we

‘ we feel and are conscious that we employ some operative
‘ Power or Powers within the Skull, and, perhaps, generally
‘ a little within the Forehead : And the Reason why we feel
‘ it there is, because the corporeal Motions and Traces are
‘ there formed and preserved, and renewed, which serve to
‘ raise or awaken Ideas in the Mind, and which are ordained
‘ to minister to the Soul in its Intellectual or Sensitive Operations, while ’tis in this united State.’

The great Mr. LOCKE himself, (whose consummate Learning, uncommon Sagacity, [I had almost said *divine*] Affiduity, and unwearied Labour in Studies of this Kind can never be sufficiently admired) does not so much as aim at any the least Physical Rationale of the Formation of our Ideas, but in the most explicit Terms honestly declares his Ignorance of the whole Matter, as is manifest from the following Passage :
‘ Not knowing how the Ideas of our Minds are framed, of
‘ what Materials they are made, whence they have their Light,
‘ and how they come to make their Appearances.’ See Book ii. Chap. 14, §. 13. Now one would have thought that all this, that the Ideas of our Minds are framed, that they require some Sort of Materials to be made of, that they require Light, and that they come to make their Appearances, might have suggested to him something like my Scheme and Hypothesis. Strange ! that a Gentleman of Mr. LOCKE’s great Curiosity and Talents for investigating those great Matters, which my profound Critics say that my Treatise professes, who dealt so much in Ideas, should have known so very little of the Fabrication and Manufacture of the Commodities he chiefly traded in. However, of all the Authors I have read, he has certainly given the best and most curious Detail and History of the Operations of the Human Mind ; and I shall

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always

always acknowledge him to have been one of the very greatest of all my Masters ; and I have been a Scholar to many : But one mounted upon the Shoulders of another, may sometimes chance to see further than the Person who holds him up.

But (to have done with endless Quotations) all of them, and all the Logical and Metaphysical Writers I ever read, having been unacquainted with this new *Hypothesis*, into what strange Wanderings and Erring Contemplations have they been led ! In what Sapiienti-similar *Deliriums* have some of them coolly raved ! What Volumes have been written ! but how unsatisfactory ! (see *Seet.* I. IV. and VII.) However, so far only, I mean, as regards the Subject in Hand. And I don't know but it might have been proper enough to have entitled this Dissertation, *Rei Metaphysicæ in Rem Physicam Reductio*, that is, *Metaphysicks reduced to Physicks* ; as such a Reduction I believe it will be allowed to have, in Part at least, effected.

To return :---Does not the various Influence different Climes, and different States of the Air, in clear and in hazy Days, have upon our Ways of Thinking also testify, in a great Measure, the Dependence it has upon the Organs of the Senses ? Does not the Memory, as well as the Eyes, fail ?

But (what had been almost forgot) the excessive Longing of some pregnant Women, and consequential Marking of the Fœtus if not gratified, is, in my Opinion, one of the strongest and most illustrating Proofs, that the interior Organical Disposition and Sensation are the same in *Thinking* as in *actual Perception*, that can be adduced.

In this Case the Mother is, with great Solitude and Earnestness, perpetually revolving in her Mind the Object of her Desire. Now the Fœtus wonderfully, in all Respects, and in every Affection, participates with the Mother. She, perpetually conversant with, and conscious of, her Own Self, Parts, Affections, &c. naturally and easily communicates to it every Disposition she is in Possession of: And it being then in the first Stage of its Formation, and the component Fibres of its Parts of such exquisite Fineness and Exility as hardly to be conceived, and being also in a prodigious rapid Progress of Increase, changing every Moment in Degrees of Magnitude from a lesser to a greater, the Disposition soon becomes so fixed and confirmed that it can never after be altered.

To this Self-conversation, Consciousness, and Communication, on one Side, and Participation on the other, perhaps it is owing that all Parents so naturally and easily stamp upon their Offspring the distinguishing Figure and Shape of the Species they belong to throughout the whole Animal Genus or Kingdom.*

* See *Genes.* xxx. 37 and 38, and that amazingly-beautiful *Psalms* cxxxix.



S E C T. VII.

BY this Time I hope it appears pretty plain that there is the highest Relation, Analogy, or Resemblance, between *Seeing*, *Hearing*, &c. and *Thinking* and *Dreaming* that we see, hear, &c. almost as great as between the Light of the Sun and that of a Candle, or the Moon. Now, in the first Case, it has been shewn that our Consciousness arose from an Impulse made from a real Object, upon the external Extremities of the Nerves, by the Mediation of Light, Air, &c. What excites our Consciousness then in the Second? Can it be done without an Impulse? By no Means. The Necessity of it seems self-evident; for, as our Consciousness here is of the same Kind with that there, an extraneous substituary Impulse (extraneous with respect to the inward nervous Mechanism) must be equally necessary.

What then (as in strong Thinking and Dreaming there is no real Light nor Sound, &c.) can mimick it so naturally as to make it appear so nearly like the First? * To say it is the Mind itself would be ridiculous and absurd; it would be making it, which ought reasonably to be supposed residing in the Center of, or intimately united with, its Machine of Consciousness, beginning and directing its Motions and Dispositions, in order to receive its Intelligences, to be at the same Instant at the Doors or Windows upon the Surface, giving

* Nobody will take Light, by the Mediation of which Objects of Seeing are presented, for the Objects themselves. Here the Presentations, or our Consciousness of them, are the Result of the Impulse from Light, and of the proper Disposition of the external Parts of the respective Organs to receive that Impulse. So in Thinking or Secondary Seeing, the Representations must be the Result of this substituary arterial Impulse, in Conjunction with the proper Disposition of the interior Mechanism of the same Organs to receive it.

giving the intelligentiferous Impulses themselves; which would be a most glaring Contradiction.

Whence then can this Impulse spring? Let us consider what Effect pressing any Thing hard upon the Eyes, or giving them a smart Blow in the Dark, has, and we shall have a successful and fruitful Hint given us in this Enquiry.

Here, from the sudden, undulatory Jumble of the Watry, Crystalline, and Glassy Humours upon the *Retina*, besides the Pain from the Contusion, we are conscious of a Sensation like a Flash of Fire or Lightning.

Whatever then can perpetuate this in a more tolerable, gentle, uniform, and lower Degree, will be the Grand *Desideratum* we are looking for.

Now, the Glorious and All-skilful Builder of the Human Fabrick (*it is He that hath made us, and not we ourselves*) has been very far from leaving it defective or unfinished in this Point. The Heart and Arteries, and from them the *Systole* and *Diastole* of the *Dura Mater* of the Brain, are perpetually at work to answer, among others, this particular End.*

However, I do not say that we have our Ideas by Thumps, or that their Succession or Duration is exactly in Proportion
to

* In the internal Economy of the Material Vehicle of every Creature that has Life, there is a perpetual impelling Circulatory Motion, which (at the Divine Appointment of the infinite and eternal God, ever blessed and adorable Architect of Universal Nature,) supplies all its Needs, Wants, and Requirements, whether with succedaneous Light or Air, &c. in the Affairs of Thinking, or Secondary Feelings, or with recruiting or repairing Materials for the Abrasions, Decays, or Wear and Tear of the Machine itself.

to the Quickness of the Pulse. And yet we find something like it in Febrile Deliriums, (whether asleep or awake) where the Thoughts are confused, quick, and tumultuous, as the contrary may be observed in Melancholy; which, by the by, seems to bid fair for accounting for Mr. LOCKE's ingenious Conjecture that the Train of Ideas do succeed one another at certain Distances of Succession which cannot be much delayed or hastened, from which, I must frankly own, I had also a most useful Hint in my seeking after this impulsive Cause, which I found to be wanting and indispensibly necessary in Secondary Sensation or Thinking.

All I would suggest is, that the quick, tremulous Motion of the Animal Spirits, or Fire, in the Nerves, occasioned by the Impulse of the Object in Primary Sensation, seems in Secondary to be excited and kept up by the continual Pulsation of the Arteries, which accompany the Nerves every where, even in their minutest Ramifications throughout the whole Body.*

This Impulse then in Secondary Sensation is not upon the denudated Extremities of the Nerves, as in Primary, but lateral, or side-long, upon the Coats they have from the *Meninges* of the Brain; which is the Reason that *Thinking* bears such Analogy or Resemblance to actual Sensation, as *Seeing*, &c. though not exactly the same.

S E C T.

† Anatomists tell us that, 'The Nerves do ordinarily accompany the Arteries thro' all the Body, that the Animal Spirits may be kept warm and moving by the continual Heat and Pulse of the Arteries. They have also Blood-vessels, as the other Parts of the Body: These Vessels are not only spread upon their Coats, but they run also amongst their Medullary Fibres, as may be seen amongst the Fibres of the *Retina*,

S E C T. VIII.

THESE Points being settled, let us now try if we can, upon the Principles of this System, account for our various Ways or Modes of Thinking.

Thus then, when the Mind would see any Thing again in Fancy (or, rather, would fancy to itself any Thing again) it has seen before in Reality, it puts the respective Organs in the same Frame, or their Nerves in the same Posture or Disposition, as when it actually saw (or perceived by any of the Senses) the Things it would now in Fancy see or perceive again; and receiving at the same Instant successive Impulses from the Arteries as before-said, (which are commonly vastly fainter than the Impulse from the Object itself, as a small Touch is to a great Twang upon any String of any the same Musical Instrument, or low Whispering to loud Speaking) it has then, in a lower Degree, the same Kind of Consciousness or Sensation it had before. And this is what may be called *Remembering* or the *Memory*.

Its keeping the Parts in the same Posture, Disposition, and Tensity, accounts for what is called *Contemplation*.

This done with Vigour accounts for *Intention*. Giving new Dispositions, or Frames, accounts for *Imagination*; *Fancying*, or *Supposing* a Thing, *Invention*, &c.

Its trying several Postures, &c. before it hits the right, accounts for *Recollection*.

Our

Our earnest and sometimes fruitless Endeavours to remember some Things clearly shew that different Objects strike the Organs into different Positions or Frames ; and that the Mind or Soul is only volitive or active in thus labouring to renew or restore those Dispositions, but passive when it has done it, having that Instant the wished-for Consciousness, Sensation, or Remembrance, by the incessant Impulse of the Arteries. Trying several Postures in this Operation is also clearly evinced by the Variety of Thoughts which occur before the right one.

Meditating or *Meditation* is an internal ocular Observation, seeing, or considering of Things ; a high mental Entertainment ; a delightful, easy, sober Rambling of the Mind from one Object to another ; ---the best Exercise for the dejected or chagrined.

From the same Principle and Power of Consciousness and Volition, and with the same Instruments, it still can employ itself, and operate further on its Ideas thus formed, in ranging, comparing, dividing, altering them in every Predicament, &c. And from this springs what is called *Judgment*, *Reasoning*, *Illation* ; on which, as there is hardly any Thing more that is new to be said, it cannot be expected that I should expatiate. I shall, therefore, for further Satisfaction, refer to Writers in Logic, as BROWNE, LOCKE, WATTS, &c. who all of them have treated this Part of my Subject with great Perspicuity ; the Task I imposed on myself being chiefly to give a Physical *Rationale* of the Formation and Association of our *Ideas*, and of *Thinking* in general ; which how far I have succeeded in, I leave to the Determination of the judicious and candid Reader.

It

It is next to impossible for us to keep the Parts always in the same Frame; for we find we tire with Thinking as well as with other Exercise: Besides, we cannot avoid being diverted with new Objects; and from this springs what is called *Forgetting*.

But sometimes, when we are surprized by any sudden Accident, we cannot directly forget it as soon as it is past, the Part, still continuing in the same Frame, (and the same Impulse continued also) 'till by Degrees, they, as it were, sinking out of their Posture, we at length cease to think of it, *i. e.* forget it, notwithstanding the *Impetus* of the small Arteries continues. Hence we come to say, after any unexpected Thing has happened, and is past, we cannot forget such a Thing yet.

I will now suppose myself actually to see, for the first Time, some particular Mountain, Hill, or remarkable House; I cannot help, at the same Time, seeing the Hills, Fields, Valleys, Trees, Houses, &c. adjoining, though, perhaps, I do not view them with that particular Attention I do the first. Now, when I come to think on this Mountain, Hill, or House again, I naturally put the respective subservient Organs in the same Disposition or Frame as when I actually saw it, and the Places adjoining, at first: So that, when the Impulse is made, all the contiguous Parts appear together in the same Scene; that is, though my Design be only to contemplate it in particular, yet I cannot avoid, at the same Time, contemplating, or thinking on, in some small Measure, the Parts about it. This to me seems to be the most rational Account that can be given for what is called the *Association of Ideas*, or their being linked together: And hence we may

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see

see how it is done when we say, when we see or hear any Thing we have seen or heard before, it puts us in Mind of such and such Things.

There are some particular Tunes, which, whenever I hear played, bring a Variety of Persons and Things into my Mind, which had happened when I first heard them, which but just before I had no Thoughts about. The same also happens from some particular Smells, Tastes, &c. and may all be accounted for the same Way.

And to this Association and Connection, which universally prevail through all Things every where, is owing that natural and easy Transition from one Thing to another which we observe in our Thoughts or Ideas, and in Conversation when we clothe them with Words.

The Organs, as to their exterior Parts, (the Muscles and Nerves subservient to the Moving and steady Fixing of the Eyes, for Instance) must certainly be in a State very lax, when we think or study, to that when we are actually giving Attention to real present Objects; for it is very manifest, when we contemplate any Thing deeply, we endeavour, as much as we can, to take no Notice of the Things that are about us; which is nothing but relaxing them (the Organs) as much as we are able, that the Impulses upon them from real Objects may not be so much perceived or felt; yet their Posture or Disposition, as to their interior Parts, with regard to what we are thinking on, is the same as if we were actually looking at it. And hence the Inattention, and Absence in Thought, which sometimes happen to some People in Company.

As

As the almost infinitely small Arteries make continually impulsive Pressures upon the equally small Fibres of the Nerves, it is possible we may have Secondary Sensations at the same Time that we are having Primary ones, though we do not seem much to perceive or regard them. Look upon a Tree, House, or other Object, and immediately shut your Eyes, (keeping still thinking on it) and you will find something like it.

This may be further illustrated by lighting up a Candle, in a Room with the Windows open, in the Day-time: Its Light will be then so absorbed by that of the Sun, that you will hardly discern it: But, shut the Windows close, and draw the Curtains, and it will have its full Effect.

Our Nerves being so exceeding fine, so variously placed, and almost infinite in Number, having all some Consent with one another, more or less) and so capable of an infinite Variety of Dispositions, or (if the Word may be allowed) Combinations, and from thence of having innumerable different Impulses made on them, is the Reason we are capable of having so many various Sensations (with their several Associations) in Reality and Fancy as we have.

Dr. CHEYNE says, (Page 12 of his before-cited Book) 'The learned Dr. PORTERFIELD very justly concludes from Dr. HOOKE's determining the *Minimum visibile* under an Angle of one Minute, that the Magnitude of a single Nervous Fibre cannot exceed the 3600th Part of a common Hair.' How infinitely numerous then may not their *Papillæ*, in the *Retina* for Instance, be! What an infinite Variety of Im-

pulses and Dispositions may they not be capable of receiving from a Mechanism (perhaps of a peculiar Kind) utterly elusive of the Anatomist's Ken, though assisted by the best Glasses, as much as the Mouths of the Lacteals! Perhaps, in Sleep they retract, slip in, or retire behind or under the fine Arterial *Plexus*, or Net-Work, and so their naked Ends come in Contact with its Pulsatory Coats; which is the Reason I have assigned for Things appearing real in Dreaming.* [See *Sect. V.* at the Beginning.]

S E C T. IX.

NOW in all this Procedure there is nothing but pure and simple Mind and Matter, Volition and Perception, Activity and Passivity. How trifling then must it be, in Logical and Metaphysical Writers, to make so many needless Distinctions between Πνεῦμα *Spiritus*, Νῆς *Mens*, and Ψυχὴ *Anima*,† for which they alledge Scripture Proof, and between

* MOSES possibly was no Stranger to all this, as may be conjectured from several Passages in the Pentateuch, particularly *Gen. ix. 4.* and *Levit. xvii. 11.* though, being under no Necessity of so doing, he did not read any Lectures in Anatomy, or Natural Philosophy, to the Children of *Israel*: For on the Circulation of the Blood depends Animal Life or Feeling; as that, together with the Impulse in Secondary Feeling, or Thinking, depends upon the Perpetual Motion of the Heart and Arteries. Take the Blood away, and every Thing ceases, Circulation, Sensation, and Impulse. But Commentating is not the Business at present.

† Might not St. PAUL's Expression, (*1 Thessal. v. 23*) 'May the Whole of you, the Spirit, the Soul, and the Body,' &c. be owing to some peculiar Idiom of the Language he wrote in? Are we not taught from the same first and best of Books, the Holy Bible, that our Duty towards God is to love him with all our Heart, Mind, Soul, and Strength? And is it not common in Conversation, when strong Professions of Sincerity are made, to say, 'With all my Heart and Soul?'

tween *Animus* and *Anima*,* &c. and ridiculous and absurd to call the Memory and Imagination (which in Fact is a Faculty of the Mind proceeding from Volition and the concomitant Impulse) a Storehouse, as it were, with Bags, Shelves, and Drawers, to lodge Ideas in, and at the same Time, to compare these to Impressions, such as a Seal makes upon Wax, (when Impressions are worn out, how are they to be renewed without a fresh Application of the Seal?) Foot-steps, Traces, &c.† and the Mind at first to a *Tabula rasa*!|| But thus have these abstruse Gentlemen perplexed and puzzled themselves and their Readers, from the Days of ARISTOTLE down to the present Times.

Nor

* Under the Word *Anima*, in the Dictionary, I see, *Anima enim propriè eam partem quâ vivimus, movemus, & vigimus; Animus autem eam partem hominis quâ differimus, sapimus, immortales sumus, significat.* What elegant Stuff here is! With equal Propriety might *Anima* be compared to some careful vigilant Miller, standing by his Hopper, superintending and regulating the Motions of his Corn-grinding Machine; or to some Head-servant in a Family, doing and ordering the Business within Doors, while *Animus*, the Master, in a more elevated Station, makes Excursions to, (as Occasions invite) or receives Visits from, the surrounding Neighbours. I am inclined to think that the Work here allotted to the first is rather done by the Supreme Omnipresent Being himself, or what a Great Philosopher calls *Anima Brutorum*.

For in Him we live, and move, and have our Being. ACTS. xvii. 28.

Ab Jove principium musæ: Jovis omnia plena. VIRG.

† As justly may a fine Singer, or Performer upon any Musical Instrument, who can perhaps sing, or play, several Hundred Songs, Tunes, or Compositions, without Book, be said to have them all safely repositèd in the Brain, and be conscious of them all separately at once; whereas they can only sing or play them one after another, as they can have successive Second-hand Auricular Sensations of them, or think of them, or are put in Mind of them by others.

The contrary also every Author who writes History, or upon any other Subject, must experience; and that in Thinking, or having Secondary Sensations of Things, the same Order of Succession obtains as did at first in the primary ones, or original Transactions to be recorded.

|| To this, (viz. *Tabula rasa*) with far less strained Analogy, might be likened the Eyes, Ears, and Skin, of a new-born Child, who never before saw the Light, heard its own Crying, or the Chat of the Gossips, or felt the cold Air, or a Pin stuck in it by an aukward Nurse.

Virgo Intacta, I should think, might do better.

Nor does the learned Dr. CHEYNE's Account, (the latest Author I know that has attempted a rational one of the Formation of our Ideas) seem to be much more satisfactory, or intelligible, where (Page 94 of his Book, twice already mentioned) he says,

‘ I can conceive the Matter no otherwise than thus : The
 ‘ Mind or Soul is the self-moving, self-active, sentient, and
 ‘ intelligent Principle, with limited but invariable natural
 ‘ Powers of Living, and of Thinking, Free-willing, and
 ‘ beginning Motion in those Bodies whose Passivity or *In-*
 ‘ *ertia* is not superior to its active Powers. How it exerts
 ‘ these Powers on divinely organised Matter I do not here
 ‘ pretend to say ; but I conceive it acts on the Organs by
 ‘ Means of the Mechanism of the Brain and its Nerves,
 ‘ which are an Infinity of differently situated, complicated,
 ‘ and stretched little Filaments or Fibrils, filled with a soft,
 ‘ milky, cellular Substance, (like a Rush with its Pith)
 ‘ contained in small, membranous, extremely elastic Sacks
 ‘ or Tubuli, all whose elastic and energetic Virtue consists
 ‘ in the proper Tension or Vibrations of these Sacks or mem-
 ‘ branous Coats, spread over all the Solids of the Body,
 ‘ which, being extremely elastic and springy, convey har-
 ‘ monious and divinely-proportioned Vibrations, Undula-
 ‘ tions, and Tremors, excited outwardly by Objects to this
 ‘ sentient and intelligent Principle ; and reciprocally the
 ‘ Soul, or self-moving Principle, impresses proper Vibrations
 ‘ and Tremors on these Infinitesimal Membranous *Sacculi*
 ‘ to the respective Organs of Sense and Muscles : And thus
 ‘ Sensation, Perception, Images, Ideas, and Muscular Mo-
 ‘ tion, may be performed.’

Muscular

Muscular Motion, to be sure, may with great Propriety be said to be *performed*; but with what Propriety, in the present Case, Sensation, Perception, Images, and Ideas, can be said after the same Manner to be performed, or how the Soul reciprocally impresses proper Vibrations and Tremors on these little Sacks to the Organs of Sense, in order to perform these Ideas, &c. I protest I cannot understand.

Material Objects certainly excite a Vibration, or something like it, in the Nerves, and so make the Soul conscious or sensible of their Presence; but to make it reciprocally impress this Vibration to the Organs of the Senses implies it (as I take the Thing) to be at some Distance from these Organs, and yet at the same Instant in them, and sensible of the Sensation, Perception, Images, and Ideas, thereby performed. This to me is all *Hocus Pocus, Legerdemain, Darknefs, Mystery, Perplexity, Contradiction*.

I think I have demonstrated that the Soul is passive in all Sensation or Perception, and only performs, or is active, in moving the Body, and framing its Nervulous Sensationary Machine into proper Dispositions or Postures, for the Reception of Images and Ideas by Impulse.

But indeed he goes on with more Clearness, and concludes the Article thus:---‘This is the best Idea I can conceive in these abstruse and obscure Distempers, which I only propose as a Philosophical Conjecture: Others may explain the Matter better, if they can.’

How easily now does my Hypothesis, or Supposition, that Thoughts or Ideas are only Secondary Sensations or Feelings
of

of Things, (the Truth of which any one may observe, experience, and convince himself of, when in the Dark, in a proper Composure of Mind, he *thinks* intensely upon any Thing) and that all Sensation or Feeling requires an Impulse, solve every Difficulty!

His Emblem of the Operations of the Mind on the Body, or comparing the Soul to a skilful Musician shut up in a fine Organ Case, may, by Way of Metaphorical Allusion, be admitted.

However, his Sentiments and Rules concerning the Preservation and Restoration of Health, and making Life happy and Death easy, are certainly just, and worthy of the greatest Attention and Regard.

S E C T. X.

I Should now take some Notice of those strong and violent Affections of the Mind called *the Passions*, but at present shall only give some brief Hints concerning them, and leave the further enlarging upon, Explication, Discussion, and Illustration, to another Essay.

As they seem to bear a strong Analogy and Resemblance to Two of the chief Properties of a Magnet, Attraction and Repulsion, I shall accordingly range them into Two different Classes, calling one the Attractive, and the other the Repulsive Order. (See *Seet. III.*)

Of the First are, Desire or Longing-for, Hope, Joy, Complacency, Glory, &c.

Of

Of the Second Order are Detestation or Loathing, Hatred, Fear, Grief, Anger, Shame, &c.

Those of the First Order may again be divided into those attended with strong but successful Volition, as eager Desire, Love,* &c. and those attended with Volition successful, as Joy, Complacency, Glory, &c.

And those of the Second Order may also be divided into those attended with strong and successful Non-Volition, as Detestation or Loathing, Hatred, Anger, &c. and into those attended with Non-Volition successful, as Fear, Grief, Shame, &c.

Desire or Longing is that uneasy Sensation, that Impatience, Unsatisfaction, and Pain we feel when the Organs of any of our Senses are put into a Disposition to receive Impulses from a real Object, which we believe to be extremely agreeable, and there are none made.

They are put, or as it were start, into that Disposition from our believing (or from our Information from any of the Senses the Object of the Desire does not immediately belong to) that the Object is, as has been said, extremely agreeable, near at Hand, and within our Reach.

Detestation or Loathing is when any extremely disagreeable Object is approaching or present, and the Mind refuses to frame the Organs into any Posture or Disposition to receive Impulses from it; as to see a Serpent, or an Enemy, at Liberty to hurt, or any Thing we have an extreme Aversion to; or to hear the Voice of an Enemy, or Thunder; and so on of all the other Senses.

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And

* See Spectator, No. 229.

And from these Two Original Sources, all the Passions of each Order, with all their Subdivisions, Blendments, Mixtures, Complications, and vultuose Appearances, I believe, will be found to proceed.*

S E C T. XI.

IF it should be asked, What is the Mind, or Soul, (that *Principium Sentiens*) that is thus active and passive in all this Variety, answer, As it cannot be its own Object, in the Manner other Objects are presented to it, (being with regard to that, only self-conscious) perhaps, in this State, and in the Manner we know Things at present, we shall never be able exactly to know what it is, but only what it is not; and that is, that it is not Matter. — I shall therefore take the Liberty to give it a new Definition, and call it an *Aliquid immateriale materiam movens & sentiens*; that is, an immaterial something that can at its Pleasure (the Will) order and direct the Loco-motion of its Vehicle, (the Body) and the various Dispositions of the exterior Mechanism of the Organs, and Common Sensory, in order to receive Impressions from real Objects, and renew these Dispositions when it inclines to have those Impressions repeated, (the Objects themselves being past, or absent) receiving then the Impulse from the Heart and Arteries.

As

* Though One may philosophise upon these Matters, and know something more of them than his Neighbour, it does not follow from thence that he should be divested of them, or exempted from their Effects; any more than One, who knows that immersing in Water will suffocate, or that a great Number of the Sun's Rays is hurtful to the Eyes, is exempted from the Consequence of being kept under Water for some Time, or his Eyes from the Effects of too strong a Light. A lame Dancing-Master may be capable of teaching a Minuet exactly, when he can by no Means move gracefully himself.

As there can be no Doubt of its being of Divine, Heavenly Extraction, perhaps its inmost Case, or Wrapper, is Fire; for that is the finest Kind of Matter that we are acquainted with; and that Matter and Mind are intimately united, however inexplicable the Manner) I believe will be denied by none: But perhaps a Kind of Fire exceeding the Sun's in Fineness as much as that exceeds Culinary Flame*. St. PAUL says, 'At Mid-day, O King, I saw in the Way a 'Light from Heaven, above the Brightness of the Sun, shining round about me and them which journeyed with me.'

Inthroned then thus in celestial Fire,† the *Soul*, when it gives little or no attention to any Thing, is (comparatively) in its peaceful, native, original State. Upon the emerging of any Object, (which ever of the Senses it belongs to) it is, as it were, roused from this Inattention. In order to consider this Object justly and exactly, it must put the respective Organs in such a Disposition as that it can receive true Impulses from it, sufficient to make up its proper *Idea*; which it does. And, as all Objects differ, more or less, (even those of the same Sense) so the Modes of their Impulses will be various, and accordingly variously affect, strike, or give a Disposition to,

G 2

the

* The Living Spirit is instantly extinguished if it be deprived either of Motion, or of Refrigeration, or of Aliment. *Can.* 31. Flame is a momentary Substance, Air a fixed: The Living Spirit in Creatures is of a middle Nature. *Can.* 32. See Lord VERULAM's History of Life and Death, *Canon* xxxi. and xxxii. with their Explications, in which are the following Passages. Explic. 1st. Now the whole Fabrick of the Parts is the Organ of the Spirit, as the Spirit is the Organ of the Reasonable Soul, which is Incorporeous and Divine: Explic. 2d. This Matter stands in need of an higher Indagation, and of a longer Explication, than is pertinent to the present Inquisition. Mean while we must know this, "that Flame is almost every Moment generated and extinguished; so that it is continued only by Succession: But Air is a fixed Body, and is not dissolved:" and further on, "But Spirit is participant of both Natures, both of Flame and Air, &c."

† See Proverbs xx. 27.

the interior Parts of the Organs : In the Sense of Seeing, for Example, the Object strikes the *Retina*, and the Sensationary Ducts adjacent, into a Disposition, or Frame, they were not in before.

Now *Thinking* in general entirely consists in this : When the *Soul* wants to review or reconsider any Thing in Fancy it has actually viewed or considered before, it gives the Organs (their interior Parts) the same Frame and Disposition they had from the First Impulse, and the Second is instantaneously given by the aforesaid small Arteries ; and thus it renews, or has renewed to it, its former Sensations or Consciousness of Things after they are past and gone. It renews, I suppose, those Frames and Dispositions (originally struck by real Objects) some-how after the Manner of Contraction and Dilation of its *Sensationary Nervulous Machine* (which, I take for granted, it is intimately united with, and resides in) *ab intra*, not by Impulse *ab extra*.

This Reframing I call the active Part of Thinking. Receiving at the same Instant the Impulse from the Arteries I call the passive Part.

Thinking, or having Secondary *Sensations*, then, must be the Result of the *Mind's* thus renewing the Dispositions or Frames, and receiving at the same Instant the Impulse from the Arteries. In the First the Soul is active ; in the Second it is passive. And this general, soft, uniform *Arterial Impulse*, in Secondary *Sensation*, (which we are conscious of having in strong *Thinking* and *Dreaming*) universally supplies, in every respective Organ, the Place of that which we have by Light, Air, Effluvia, and immediate Contact, from Real Objects in Primary Sensation. And

And this is the Sum of all, viz. how the Soul acts, and is acted upon, in Conjunction with the Body, or in Union with Matter; the various Ways of which we have been accounting for.

I often re-act in my Mind many agreeable Scenes, sometimes melancholy ones, that are a long Way and While distant and past; and have at Times (as well Sleeping as Waking) many beloved Objects, almost realised, before my Eyes, (my Mind's Eyes I mean, with SHAKESPEARE) that Death and the Grave have been long in Possession of. How begins, what compleats, the Formation of the pleasing *intraneous* *Phantoms*, whence the Light, the Air, &c. whence the Impulse, if not as I have said?

Now to GOD, the Gracious and Merciful Illuminator of the Human Mind, the from Everlasting to Everlasting, Infinite and Eternal God of Truth, (who, according to MOSES and St. PAUL, is a Consuming Fire,) All-wise, Almighty, and All-benign, (as such a Being most assuredly there is,) the fearful and wonderful Maker and Preserver of all Things,† but forever incomprehensible and unknown,‡ be all the Glory.

† O qui perpetuâ Mundum ratione gubernas,
Terrarum Cœlique Sator! &c.

Vide BOETHIUS.

O Thou whose Pow'r o'er moving Worlds presides,
Whose Voice created and whose Wisdom guides,
On darkling Man, in pure Effulgence shine,
And cheer the clouded Mind with Light Divine:
'Tis thine alone to calm the pious Breast,
With silent Confidence and holy Rest;
From Thee, great God, we spring, to Thee we tend,
Path, Motive, Guide, Original, and End.

RAMBLER, No. VII.

‡ Job. xxvi. 14.

P O S T S C R I P T.

† A great deal more might have been said to illustrate this (shall I venture to call it) *New Philosophy* of the *Human Mind*, some Things being perhaps too slightly touched, left unfinished, or not sufficiently proved; and every Section might have been spun out to a far greater Length, and many more added. But being perpetually interrupted by Avocations of a different Nature, the *Res Domi*, (which must be my Excuse for Inaccuracy and every other Fault) I must leave the Whole as Hints to others, to object to, refute, and condemn, or improve and confirm, as they shall see Reason for; and for the present conclude.

From my Lodgings at Bath, (where Hygeia, Venus, and all the Virtues and Graces, keep their respective Courts)
20th May 1773, myself sadly decrepit in my 70th Year.

J. R.



A Letter

A Letter to the Learned and Ingenious Dr. C. M.

One of the Late Secretaries to the R. S.

Upon the foregoing SUBJECT.

S I R,

I Have re-considered, as you desired, the Affair of the Arteries being subservient to the Memory and Thinking, and beg Leave to lay my Sentiments before you.

1st,—I suppose it will be granted that our immediate Knowledge of Material Things round us is by or from Sensation.

2^{dly},—That Sensation cannot be without an Impulse made from the Object upon the Organs of our Senses, whatever Way that Impulse may be carried to the Common Sensory, whether by Vibration, Undulation, or the Third Way of BOERHAAVE which you mentioned, or any other not yet discovered; that being, as I take it, out of the present Question.

3^{dly},—In reflecting upon Things past; I have, for Instance, seen you,---the first Time at Sir HANS SLOAN's, and can remember your Person and Dress, what Sort of Weather it was that Morning, and the Situation of the Houses and Streets,---the other Time at your own House, and can remember the Position of your Parlour, the Lady and Gentleman that breakfasted with us, the Pictures, Chairs, with other associated Objects. I say, when I reflect upon all these Things, now they are past and absent, and at an Hundred Miles Distance, with some Intention, in a place where I am uninterrupted with real Objects of any Kind, I am conscious of a Sensation of the same Kind, though in a vastly fainter Degree, and find my Organs in the same Frame or Posture, in Proportion to my Clearness or Faintness of remembering, as when they were actually present. (And indeed our lively Dreams are, in my Opinion, further and clearer Proofs that the Postures of the Organs are the same, and the Sensations of the same Kind, when we Review Things in our Minds, as when we actually perceive the real Objects themselves: All which to me is evincing that the Memory is a Secondary Sensation of Things absent or past.)

4^{thly},—All this granted, viz. That our immediate Knowledge of Material Things round us springs from Sensation; That an Impulse from the Object upon the respective Organ is indispensibly necessary for that Sensation; That, in remembering Things absent and past, we find the Organs of our Senses in the same Frame, in a Degree proportionable to the Intention and Clearness we Think with, as when they

they were actually present, and have a Sensation of the same Kind, though in a vastly fainter Degree, which I call Secondary; whence is the Impulse for this Secondary Sensation? for certainly, it being a Sensation of the same Kind with the first, an Impulse is as absolutely requisite. Is it the Mind itself that makes it? The Mind, as I have observed, is entirely passive in all Sensation, and only active in moving our Bodies, and putting the Organs of our Senses in proper Dispositions; and therefore it cannot be the Mind itself. What is it then? Why I can find nothing but the Pulsation of the Arteries: And who knows but that this may be one of the Ends for which the Almighty and Infinitely-wise God contrived for the Heart and them a perpetual Motion!

5thly.—If these Arguments should not be thought strong enough, let it be considered, That if, in Thinking or Remembering, the Posture of the Organs, and the Sensation, be the same as when we actually perceive real Objects, which I think is beyond all Doubt, then for the Mind to be residing in the Common Sensory, (if Locality may be allowed Immaterial Beings, which in the present Case, in a peculiar Sense, I think may, notwithstanding the quaint Arguings of some Philosophers to the contrary; for with what Propriety of Expression can we talk of the Union of Body and Mind, if no Ubi, or Whereiness, may be allowed to the last?) there to receive Intelligences from Impulses, and at the same Time to be making the Impulses at the other Extremities, and all along the Sides of the Nerves, where the Postures are framed, is certainly a Contradiction. Besides, it would be dividing the Soul, which is in its Nature simple and indivisible, and making one Part of it Material, and the Object to the other; which would be ridiculous.

6thly,——To conclude, let it be observed, That the Motion of the Heart and Arteries is involuntary; that, when we are awake, and do not give Attention to real Objects, we cannot help having Ideas of one Thing or other; and that, in Syncopes and other Cases, where there is a total Cessation of the Pulse, there is no Sensation of any Kind whatever, neither actual nor imaginary, though the Nerves may then be in a sound State. But I foresee it will be objected to this, That the Nerves are not then in a proper State for any Kind of Sensation; witness the universal Relaxation of the Body. To this I answer, There is as great a Relaxation in healthful Sleep; and yet we then have lively Sensations, as has been before observed: But I never heard of any that had a Dream in a Fainting Fit, unless a Confusion of faint imaginary Sight and Sounds, at the going in and coming out of it, may be called such; which is easily accounted for.

I am, Sir, &c.

J. R.

To Mr. J. RICHARDSON, at Newent, Gloucestershire.

SIR,

May 11, 1734.

I Received your's of the 4th, by which I perceive you had not then received my last. A very eminent Clergyman, to whom your Papers were referred, hath given them back, and (desiring his Name may positively be concealed) hath reported, that they, being purely Metaphysical, were entirely Foreign to the Business of the Royal Society, but that the Performance was on the whole Ingenious, and contained some Thoughts entirely New. When you come to London, I can tell you more about it.

I am, Sir,

Your very humble Servant,

CROM. MORTIMER.

To Mr. J. RICHARDSON, Surgeon, at Newent, Gloucestershire.

SIR,

UPON reading your Manuscripts, I find several happy Sentiments in them, to which I am much inclined to assent, and some others which I would be glad to talk over with the Author in one Hour's Conversation, if he were near me: But I have not Time nor Health enough to enter into an Epistolary Debate about them. I own, I love to read an Author who seems to think intensely and rationally on his Theme, and to say something new; and our Ignorance of so many Things relating to the Human Mind and its Actions is so great, that many New Things I believe may be said on this Subject; your Manuscript gives me Proof of it: And I am of Opinion 'twould not be lost Time to put these Sentiments of your's into a more regular Method; which seems necessary, if ever they are published, both in respect to the Reader, who will be much more enlightened and convinced, and in respect of your chosen Patrons, I mean the Royal Society.

I have read also two Letters to Dr. Mortimer, and with him I ask Leave to doubt, whether the Arteries are the Causes of all voluntary or involuntary Thoughts, besides Sensations, or whether the Ideas keep pace with the Pulses? But I hint no more of my Doubts, for I cannot debate in Letters.

Your humble Servant,

April 7, 1735.

H

I. WATTS.

N. B. All these are the gentle slight Critiques of Friends ; but I had afterwards the heavy Charge of *Unspecious Contemplation* and *Metaphysical Darknefs* to encounter with, printed some Years ago, by a Society of Gentlemen of neither small Parts nor superficial Learning, which, however, I answered as well as I could, and which Charge and Answer I do not now republish to gratify any Altercation, or petulant Humour, but merely for the sake of Truth, &c.




*To the Philosophers and Metaphysicians of the present Age, into whose Hands
the following Critique, with Remarks, may come, it is with the greatest
Deference and Submission inscribed, by their most respectful humble
Servant, the Publisher of the foregoing Thoughts, &c.*

A D V E R T I S E M E N T.

NEWENT, *June 28, 1756.*

LIVING here, at a great Distance, in the Country, it was some considerable Time after its Publication before the following notable Piece of Criticism (the only one I have as yet seen upon the foregoing Trifle) reached this Place. And the same Excuse, mentioned in the Postscript, (see Page 46.) still subsisting, it was still longer before I could be at Leisure to take any Notice of it. After exhibiting my Title Page, ⁽¹⁾ they proceed thus :

The Author of this Treatise, which professes great Matters, dissatisfied with what BACON, DESCARTES, LOCKE, LEIBNITZ, and many other famous Philosophers, have delivered concerning the *Ætiology* of Thinking, and the physical Cause of the Passions, &c. imagines, he has fully discovered the Manner in which we think, or form our Ideas, and presumes with the Exultation of an *ιππνα*, p. 27, that his Dissertation might properly have been entitled, *Rei metaphysicæ in rem physicam reductio*, i. e. *Metaphysics reduced to Physics* ⁽²⁾.
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⁽¹⁾ See *Monthly Review* for January 1756.

⁽²⁾ To this I answer them not a Word.

To give the fairest Communication of this supposed Discovery, must be to give it exactly in the Author's own Words.

'I have observed then, (after considering it in the deepest and most abstracted Manner I was capable of,) that the Mind or Soul never thinks, that is, studies, remembers, or imagines any Thing, without using (though sometimes almost in an imperceptibly small Degree) the Organs of that Sense, which the Ideas it has in Consideration belong to, the same Way as if it was actually perceiving what they represent, by immediate Sensation. For Instance, when I reflect on any of the Objects of Seeing or Hearing with great Intention, I cannot help putting the Organs of the respective Sense in the same Posture, Frame, or Disposition, (call it what you will) as if I was actually perceiving what I was only thinking on, and am conscious of a Sensation, (though also in a small Degree) of the same Kind as at first, a Notion of Distance of Time and Place always associating, or accompanying, that is, when and where what I am thinking on happened.'

A Painter's drawing a good Likeness from Memory, and our sympathizing with excellent Actors in a well-wrote Scene, are adduced in Proof of this (3). But our admitting the Observation to be just, does not evince it to be a new Discovery, since possibly its being [more or less] so obvious to every curious Person, who has closely reflected on the Influences of his intenser Thoughts upon

(3) Are no other Proofs adduced? See the Notes to Sect. IV. see also Sect. V, and VI. But I will here adduce another, very familiar and obvious, for the Truth of which I appeal to the Experience of the Studios. Soon after the above came to Hand, I read it over three or four Times with great Attention, upon which I had it almost by Heart. It happened then to be carried to a Gentleman's, about five Miles off, where it lay some Months. During this Period, I wrote, by mere Dint of Memory, most of the following Remarks. But I never set about any of them, but the Idea of the Book, the Place which opened to the above Censure, the Number of the Page, the Position of the Lines and Sentences, with every Association, came still strongly into my Mind, as if before my Eyes, in the very Manner as when I first

upon his sensitive Organs, has been the Reason, that no such Person, before our Author, to the best of our Recollection, has ever thought of claiming it, in Form, as a Discovery. But not to confine it to the Philosopher, or Physiologist; a Musician, who without the slightest vocal Utterance of a particular Tune, is attentive to the Idea of it, is conscious, upon the least Reflexion, that his internal Ear is affected by it, and differently from what it would be by another. The same may equally be said of other Artists, and, indeed, of most reflecting People in general; whence no Individual can justly arrogate that as a Discovery, which is only an Observation, that must have occurred to the Experience of many. It may be very true, at the same Time, that our Author 'never met with it any where,' which is the Case, perhaps, for the Reason we have already given (4).

In

first read it; (see Sect. VIII. p. 34.) But to palm this, and such like, upon the World as a Discovery, it never entered into my Head, any more than the above Observation, or the miscellaneous Remarks in Sect. VI.

(4) That I do not *arrogate* this as a *Discovery*, I think is manifest from the Motto I have chosen from *Shakespeare*, from the Appeal I make to the Experience of others, (see pag. 6) and from the Experiment I propose (pag. 14) to make the Observation clearer by, by which I put it in any one's Power to make the same Observation with myself. But it happened necessarily and luckily to be the first Step I could successfully take in my Investigation of the Subject I was in Pursuit of. Every Thing must be obvious when it is clearly shewn. But it is, however, something odd, that an Observation so trite and obvious as these Gentlemen will have this to be, and on which the main Argument of a Disquisition of this Sort must be founded, should never be mentioned by any Author before. What I chiefly *arrogate* as a *Discovery* is, that, *admitting the Observation to be just*, it follows, that *Thinking* must be a secondary Perception or Sensation of Things, vastly analagous to that primary real Perception or feeling

In Fact, as though some secret Impulse had suggested to our Author the Self-deception he might labour under, in supposing a pretty obvious Observation to be a Discovery, he endeavours to ascertain the Instruments by, and the Manner in, which this Thinking, or secondary Sensation, whether in a waking or sleeping State, is effected. This we acknowledge would have been a real and profound Discovery, and such an analytical Display of the Process of Thinking⁽⁵⁾ as Mankind must have very thankfully received. Conceiving then that a material Impulse, though in a lower Degree, is as indispensable to this internal Affection of the Sensitive Organs, which he supposes must precede Thinking, as the external Impression of Objects was to primary Sensation, he assumes, p. 31, 'That the Heart and Arteries, and, from them, the Systole and Diastole of the Dura Mater of the Brain are perpetually at Work to answer, among other Things, this particular Purpose,' *i. e.* of exciting such sensiferous Impulses. Now this, which is easily affirmed of arterial Pulsation, and not unfancifully suggested, is extremely difficult to prove, and does not appear even specious to contemplate. For does it really seem probable, that the simple uniform Pulsation of the Arteries is as adequate a Cause to excite all that Variety of Ideas, revived by Thinking; as the different Impulses from
external

feeling of Things which we have by the Organs of the Senses, and that as such it must necessarily be performed by sensitive Organs, and require an actual material Impulse. I also *claim in Form* the *Discovery* of these Organs, and of the Spring of this Impulse; as also why Things appear real in Dreaming, (*viz.* because the arterial Impulse is then exerted upon the naked Ends of the respective nervous *Papillæ*, as well as upon their Sides; which Impulse, however, is not the Object fancied to be seen, but only supplies, or is substituted in, the Place of Light) together with the *Rationale* of the Source of the Passions in general, &c. see Sect. v. at the Beginning, and Sect. vii. and x.

(5) Now this very *analytical Display of the Process of Thinking*, I flatter myself these Gentlemen will, upon a second Perusal, allow I have given: (for which, see Sect. viii. and xi.) But I shall not take their *thankful Reception* of it as a Sample of that which I expect from the Rest of Mankind.

(6) The

external Objects, on the very differently constructed Organs of Sense, are to impress the primary Representations conveyed through them to the Mind? The Answer in the Negative is obvious (6); since those Impulses, though less forcible, ought to be as variously modified as the external ones, to produce an equally numerous and various Set of Ideas in Thinking, or in Dreaming: But this very probably not being the Case, the only Share which the pulsating Arteries have in the Formation of Ideas, independent of the Secretion they provide for in the Brain, seems to be that Continuance of vital Motion, without which the Soul, with every Faculty, and with every Degree and Mode of Sensation, vanish. Hence it follows, that this very doubtful Hypothesis, joined to the Observation which suggested it, do not amount to a Discovery; which seems to signify an effectual Research into something not already known; a certain Invention of something new; or a clear Proof of some Proposition not before demonstrated.

We

(6) The Answer in the Negative is far from being obvious, as it does not so much depend upon the different Modification of the Impeller as upon the different Modifications of the Frames or Dispositions of the Organs in which they are to be impelled upon. The Impulse of Light, for Instance, under the same simple uniform Modification, exhibits to View an infinite Variety of Objects all differently modified in their Appearance. The Sun, whose Rays universally fall upon all Objects alike, cannot be said to be the Objects themselves, which, by the Reflection of those Rays, are presented to us. To illustrate this further---When this same Sun is down, and the Day gone, all Things are covered with Darkness: But let the Moon rise, or light up a Lamp, and Things, (remaining still in the same Situation and Posture as at first) under the Influence of the Impulse of their Rays, will again become apparent, and we sensible of them. It is the same in forming Ideas, *Thinking* and *Remembering*, when the real Objects are absent, past, or forgotten: The arterial Impulse becomes then (the same Frames or Dispositions of the internal Parts of the respective Organs, that they were struck

We have very little to offer on so abstruse a Point ourselves ; and yet as Contemplation will often impel us on Conjecture, (7) though it seems to our Author

struck into at first by the original real Objects themselves, being previously renewed by the *Will* ;*) as the Impulse of *Light*, to the interior Parts of the Organs of *Vision* ; of *Air*, to those of *Hearing* ; and so on to the other Senses : And thus the *Forms* of those obliterated Objects will again become apparent in our Minds, and we conscious of them ; see Sect. VII. at the Beginning, and Sect. XI. toward the End ; see also pag. 32.

A learned Friend, (knowing what I was upon) has, this Minute, offered the following Illustration ; which, as it is to the Purpose, and shews his right Apprehension of my Scheme in the Main, I will also insert.

“ The sensationary Machine may be aptly compared to a
 “ well-tun’d Organ : The arterial Pulsation in the one is of
 “ the same Use as the Stream of Air, or aërial Pulsation in
 “ the other : The Mind acts the same Part with Respect to
 “ the one, as the Musician does with Respect to the other.
 “ As there can be no Sound without an Impulse from Air,
 “ so there can be no Consciousness of any Ideas without an
 “ Impulse from the Arteries : As the regular and uniform
 “ aërial Impulses are variously modified by the Hand of the
 “ Musician, so as to produce a Variety of Sounds, so the re-
 “ gular arterial Impulses are variously modified by the Mind,
 “ (*viz.* from its varying the Dispositions, Frames, or Postures
 “ of its said Machine,) so as to cause a Variety of Ideas.”

(7) They have made their Words good. The *Point* to them is certainly very *abstruse* ; and by what they have offered,

* See Recollection Page 31.

Author absurd and ridiculous, and even a Contradiction to say, that the Mind, which is to receive the intelligentiferous Impulses, can give them herself, or mimick the Representations (8) so naturally, as to make them so nearly like the first, (p. 29) yet, till he has a more competent Notion of Spirit in the Abstract, and of the different Limitations of his own and others in the present State, let him suppose the following Hypothesis as possible as his own, *viz.* That the unsleeping immortal Spirit, whose inmost Wrapper he conceives to be a peculiar Fire, may, by a various Expansion and Exertion of such an active Involucrum, excite, whether with or without Design, such Motions in, or such a Disposition of, the internal Organs of Sense, as may necessarily represent certain fugitive Copies (9), more or less exact, of Objects formerly presented to her Notice thro' the

ferred, their *contemplative* and *conjectural* Store seem both to be very small.

(8) *Mimick the Representations.*] What gross Misrepresentation this! *Impulse* they should have said (see page 29.) with the mimicking of which the Mind has nothing to do. Into what a Train of Blundering will the least Mistake lead one! Nobody will take Light, by the Mediation of which Objects of Seeing are presented, for the Objects themselves. Here the Presentations, or our Consciousness of them, are the Result of the Impulse, from *Light*, and of the proper Disposition of the external Parts of the respective Organs to receive that Impulse. So in *Thinking*, or secondary *Seeing*, the Representations, or our Consciousness of them, must be the Result of this substituary arterial Impulse in Conjunction with the proper Disposition of the internal Mechanism of the same Organs to receive it.

(9) All Copies exhibit the same Representation as the Originals do. Originals exhibit their Representation by an Impression made by or from them upon the Organs of the Senses. Must not therefore what copies represent be performed in the same Manner?

the external Organs. Thus will our internal Ideas, or Thinking, whether asleep or awake, be formed by a Kind of Re-action, *ab intra*, of the Soul, (which Mr. *Richardson* affirms, p. 29, to be beginning and directing the Motions and Dispositions of its Machine of Consciousness) and this by only supposing her not in a fixed, torpid, and immoveable State, in that stupendous Organ, the interiorly vital Condition of which is absolutely incognizable, perhaps, inconceivable, by Man: And if we can reason but very obscurely on the palpable Apartment, how shall we circumscribe that Emanation from Divinity, which resides for a Season in it ⁽¹⁰⁾.

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⁽¹⁰⁾ How very solemnly all this sounds! but how empty! Now, candid Reader, what is one Half of all this (excepting the Epithet *Unsleeping* given to the Soul, the Propriety of which I can by no Means apprehend; for if I suppose *Sleep* to be a general, constant, intermitting Cessation of Action, and Perception, or Sensation, throughout our whole Lives, owing to the universal Deponement, Relaxation, or unstringing of the Muscles and Organs subservient to those Purposes, and am right in such a Supposition, the *Soul* then, so circumstanced, cannot properly be said to be *unsleeping* any more than a Soldier can properly be said to be acting, as a Soldier, when he has divested himself of his military Accoutrements, laid down his Arms, or sheathed his Sword.) I say, what is the first Part of all this, but echoing back to me the first Half of my own *Hypothesis*, which I call the active Part of Thinking (see Sect. XI.) By this active *Involucrum*, or *Wrapper*, it was obvious that I meant it begun those Motions and Dispositions necessarily previous to both primary and secondary Sensation. But if in Thinking, with great Intention, and in the Case of *Dreaming*, (which gives great Strength to the whole of this Argument) we are conscious of something very analagous to primary Sensation, (which I imagine I have proved in Sect. IV. and V.) where is, all this while, the Impulse which this secondary Sensation must necessarily require?

To

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imp
Soul

It is easy, however, to suppose much, though we can establish very little on such an abstruse Point, in Regard to which we pretend to no other Discovery, than

To what Purpose would it be, in the Dark, to writhe, dilate, contract, expand, or, any Manner of Way, exert Motions or Dispositions in the Organs of *Seeing*, for Instance, where there was no *Light* to give the Impulse whereby Objects of that Sense are necessarily presented by? So in inward secondary *Seeing*, or *Thinking*, to what Purpose, (supposing the Thing practicable, when the Circulation of the Blood, another necessary Effect of the Cause of this Impulse, was stopt; as, in that Case, all Inclination and Disinclination, Attraction and Repulsion, *Anima-vital Magnetism* or *Volition*, would be gone (see pag. 11, and the Note to Sect. VIII.) To what Purpose, I say, would it be to exert or renew the proper inward Motions or Dispositions of the respective Organs if there was to be no internal secondary Impulse? O, intimate they, (or what they have said must have no Meaning at all) the Soul can do all this, by Means of its aforesaid active *Involucrum*, by a Kind of Re-action, *ab intra*.* Now, the Point standing thus, this *Involucrum*, with the Soul in it, must either be contained in the *sensitive* Organs, in every component nervous Fibre or *Papilla* of them, or it must not be so contained: If so contained, how can the *Soul*, by any Manner of Expansion or Exertion of this *Wrapper*, make any Impression upon those Organs, which must imply it to be done, *ab extra*? If not so contained, how can it make any Impression upon them, *ab intra*? For certainly to be within and with-

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out,

* *A Kind of Re-action, ab intra!* What Kind of Re-action? Re-action upon what? not upon its involutionated self, or the inclosing Organs; that cannot be. Does it not imply, this impressive Re-action, *ab intra*, to be exerted upon another involutionated Soul, in exteriori? What a prodigious Flight of Thought this of their's!

than that our Author has left it as metaphysical as he found it. We imagine
we

out, at the same Instant, must be a Contradiction. But an Absurdity of this Sort I have already exploded in Sect. IX. page 39 and 40, which see. See also my Letter to Dr. M. Art. 5. Further, when we view any Objects of *Sight*, is it not by the Help or Mediation of Light that we see those Objects? And is not this Impulse of *Light* extrinſical, or *ab extra*? When we reflect upon the same Objects again, in our Minds, with proper Intention and Clearness, don't we find the inward Frame or Disposition of the respective Organs the same nearly as at first, and that we are conscious of a Sensation of the same Sort, (though in a dimmer and fainter Manner, as if the Objects, with every associating Circumstance, were still before our Eyes;) as we were at first from the aforesaid extrinſical Impulse, or as was excited at first, before our Eyes, *ab extra*, from the real Objects themselves? And does not all which shew the Necessity of a secondary substituary Impulse, and that it must be extrinſical also? Again, Do not beautiful Descriptions, (many of *Shakespeare's* and of *Milton's*, and in well-written Novels or Romances, for Instance) affect us in the same Manner as if we were looking at the Things described? And does not this also shew the Necessity of a secondary substituary Impulse, in this secondary Sensation, succedaneous to that from *Light*, and that, with Respect to the immediate *Involucrum* or *Wrapper* of the Soul, it must be *ab extra* also? Whence now can this secondary extrinſical Impulse, substituary and succedaneous to that from *Light*, come, if not from the capillary Arteries which are so curiously and finely interwoven with the nervous *Fibrille* in the *Retina*, &c.? See Sect. vii. throughout.

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we have cited all he thought to be quite new and convincing⁽¹¹⁾; and, indeed, we should have treated his Pamphlet (of near fifty Pages) in a more summary Way, were it not obvious, that his Consideration of the Subject has cost him much Time, and great Labour of the Brain⁽¹²⁾: And as we can neither discern

Our great Weakness and Imperfection, in Researches of this Kind, I have already hinted at in more Places than one; but I know of no Law, divine or human, that forbids our attempting the Investigation of *Truth*, and *the Reason of Things*, as far as we are able.

(¹¹) Monstrous Imagination! They have overlooked or misrepresented almost every Thing I thought to be so. This must be obvious to every judicious attentive Reader.

(¹²) Is not all this arrogating, or rather arrogant? Indeed these sage Sons of Censure happen to be much mistaken in saying it is "obvious that my Consideration of the Subject has cost me much Time, and great Labour of the Brain:" since the whole Time put together, of contemplating, revising, and methodizing, did not amount to above six Weeks, and of these not above two Hours in a Day: And as to Labour of the Brain, the Study, however severe it may appear to them, I protest, was to me the greatest Pleasure I ever enjoyed in my Life: And I am ready solemnly to declare, (were such a trifling Performance as the present worth such a solemn Declaration) that the Consideration and Penning of this has been the Amusement only of a few idle Hours. But all this, perhaps, they will affirm, (as they have already done by the *Observation Discovery*) may be *Self-deception* owing to the *Suggestion* of some secret Impulse. Now I do protest I do not deal with familiar Spirits of any Sort; neither indeed (in the present Case) do I look upon them to be Conjurors.

Reading

cern any bad Purpose ⁽¹³⁾ nor Tendency in his Performance, we thought the moral Attention due to a Person who certainly means to illuminate ⁽¹⁴⁾ his Species, was due to it. The Author seems a Man of great Simplicity and Gratitude, from the Dedication of his Treatise to those munificent Subscribers, who had enabled him to publish an Eighteen-penny Pamphlet; ⁽¹⁵⁾ as his limited Knowledge

Reading the Authors, which these Gentlemen are pleased to say I have been *dissatisfied with*, cost me indeed a good deal of Time; but I think there should have been some Difference made between *not receiving the Satisfaction I expected*, (see page 5.) and being *dissatisfied with*.

⁽¹³⁾ I am glad they clear me of all heterodoxical Imputation: I would not for the World disturb the Peace of Religion; certainly true Happiness springs from it.

⁽¹⁴⁾ That is most certainly what I meant to do; but the Rays of my new Light had not the good Luck to pass thro' their intellectual Optics.

⁽¹⁵⁾ I am obliged to them. A grateful Simpleton is not the worst of Characters. It behoved me to thank my munificent Subscribers in the laconic Manner I did.* They are the only Patrons I have ever had; and I have thereby escaped the great Sins of Lying and Flattery: And if ever I write again, (as, being with a trembling Hand, now in 1773, upon the Verge of Seventy, I believe I shall not) I intend to dedicate it to a dead Prince, even to Solomon, King over all Israel; for (next to his present Majesty, the gracious Protector of all our Liberties and Rights) I am more beholden to him than to all the Men upon Earth. It is chiefly owing to

* The first Edition of this Pamphlet was inscribed "To all my good Friends, the worthy Promoters, Subscribers for the Printing, and Purchasers, of this small Work."

Knowledge of Men and Books is also manifest from his Letter, at the Conclusion, to a late Physician on a metaphysical Subject; and from a complimentary Reference to a Treatise at the Bottom of his fifth Page ⁽¹⁶⁾.

to that great and wise Monarch's Authority and Example,* that what I have done has been done.

⁽¹⁶⁾ As to the supercilious Sneer that runs through the whole of this their present Performance, (which I take to be the chief Excellence of it) I must own my Knowledge, in an Infinity of Things, is so limited and small, that I have no Talent at retorting it. But this I will venture to *say*, They have *reviewed* my *Thoughts* as *Belisarius* would have done an Army, after his Eyes were out. They are nevertheless not altogether inexcusable, if they had seen ever so well; mine happening to be, like the *Prussian*, a *new Exercise*, of which, having never heard of it before, it was impossible they could, at first Sight, be competent Judges.

* See Eccles. vii. 25.

F I N I S.



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de variis phlogophae defunctivibus

Pam 49.